

## CLAIMS

What is claimed is:

1. An implementing mechanism, providing for effecting tasks associated with user selection of task-associated objects, and being associated with an environment, the environment comprising one or more environmental devices, the implementing mechanism comprising:
  - resources including user interface facilities supporting display of task-associated objects, communication facilities enabling communication with environmental devices, display facilities enabling display of task-associated objects, and input facilities enabling user selection of task-associated object; and
  - a tasking software system including a state tracking subsystem, a cluster formulation subsystem, a cluster presentation subsystem and a transition subsystem, wherein
    - the state tracking subsystem supports context determination;
    - the cluster formulation subsystem formulates clusters, each cluster comprising selected objects, such formulation being responsive to context;
    - the cluster presentation subsystem supports the formatting and presentation of task-associated objects of an active cluster responsive to context; and,
    - the transition subsystem supports transitions among formats/presentations of an active cluster;
    - the tasking software system operating in coordination with the resources so as to display, via the display facilities and responsive to context, clusters of task-associated objects and, by selection of any such object, to enable a user to activate a task respecting one or more environmental devices.
2. The implementing mechanism as claimed in Claim 1, wherein the cluster formulation subsystem re-formulates the clusters, responsive to context, and on an adaptive and dynamic basis.
3. The implementing mechanism as claimed in Claim 1, wherein the cluster presentation subsystem supports the formatting and presentation of objects, responsive to context and on an adaptive and dynamic basis.

4. The implementing mechanism as claimed in Claim 1, wherein the transition subsystem supports transitions among clusters as to active status.

5. The implementing mechanism as claimed in Claim 1, wherein the state tracking subsystem supports context determination by gathering data respecting at least one of environmental, device, system and temporal states.

6. The implementing mechanism as claimed in Claim 1, wherein the user interface comprises a graphical user interface.

7. The implementing mechanism as claimed in Claim 1, wherein the tasking software system further comprises at least one of an object discovery subsystem and a help subsystem.

8. The implementing mechanism as claimed in Claim 6, wherein the object discovery subsystem supports the discovery of environmental devices.

9. The implementing mechanism as claimed in Claim 6, wherein the object discovery subsystem supports an introduction function, such function enabling communication of "get-to-know-me" information with environmental devices.

10. The implementing mechanism as claimed in Claim 1, further comprising collateral software, the collateral software enabling at least one of (a) user recognition and authentication, (b) acquisition and processing of data on ambient environmental states, and (c) acquisition and processing of data respecting the determination of the implementing mechanism's physical position in its environment.

11. The implementing mechanism as claimed in Claim 1, wherein the tasking software system comprises distribution facilities, the distribution facilities providing for distribution of one or more functions and operations of the tasking software system and its subsystems over, between or among one or more of a first implementing mechanism, additional implementing mechanisms, one or more environmental devices, one or more other external computing

61 devices, other computer system(s) and network resources.

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63 12. The implementing mechanism as claimed in Claim 1, wherein the resources and tasking  
64 software system coordinate so as to support tasking of the implementing mechanism by the user  
65 selection of objects as displayed by the display facilities or by one or more environmental  
66 devices.

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68 13. The implementing mechanism as claimed in Claim 12, wherein the resources and  
69 tasking system coordinate so as to enable the implementing mechanism to emulate one or more  
70 environmental devices.

1 14. The implementing mechanism as claimed in Claim 1, wherein a task-associated object  
2 comprises a macro object, such macro object, if selected, being enabled to change a state of  
3 one or more environmental devices.

1 15. The implementing mechanism as claimed in Claim 1, wherein a macro object is user  
2 defined or system-created from user usage patterns.

1 16. The device of claim 8, wherein the tasking system is distributed over the device and an  
2 external digital processing device.

1 17. A method implemented on an implementing mechanism comprising the steps of:  
2 presenting a plurality of task-associated objects via display facilities, each object  
3 corresponding to a respective environmental device and being context relevant;  
4 selecting an object; and  
5 executing the one or more tasks associated with the selected object while maintaining  
6 context-relevancy of the presented objects.

1 18. The method of claim 17, further comprising:  
2 polling the environmental devices to determine, based on response, a current state of  
3 the environmental devices; and

updating the presented objects to evidence the so-determined current state.

19. The method of claim 17, wherein the executing step comprises:

transmitting a signal to an environmental device instructing it to change state or

implement a set of instructions to effect a change in state; and

updating the presented objects to reflect the object selection, so as to maintain context-relevancy of the presented objects.

20. The method of claim 19, further comprising receiving information from environmental devices, so as to determine, based thereon, the physical location of the implementing mechanism, and updating the presentation of objects based on the so-determined physical location.

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